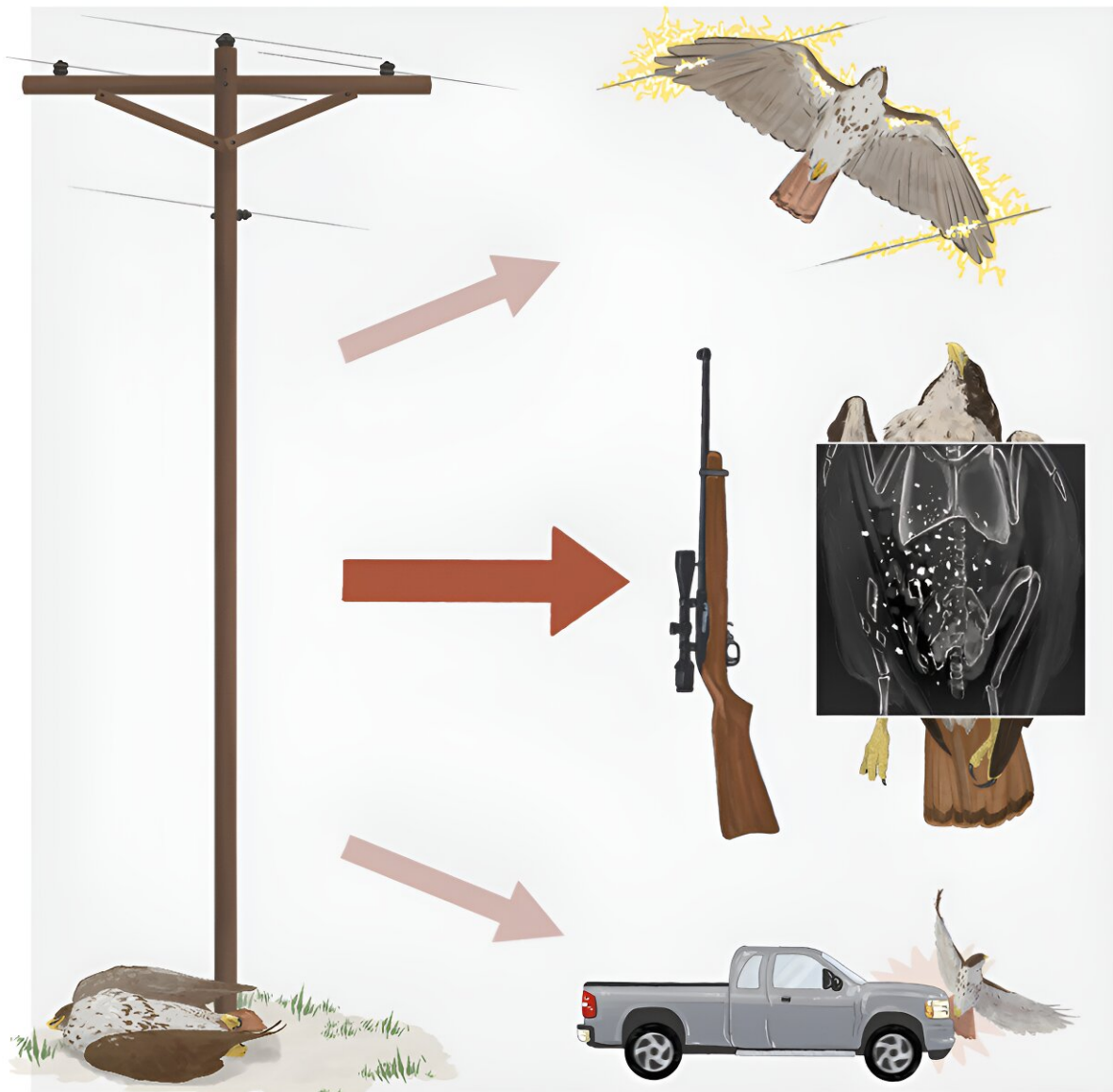


# Illegal shooting responsible for most birds found dead near power lines, study finds

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Graphical abstract. Credit: *iScience*, Thomason et al.

Birds can be electrocuted if they come into contact with two energized parts of a power line at once—which can happen when they spread their wings to take off from or land on a power pole. Because of this, energy companies invest substantial time and money into making sure power lines are avian safe, installing safe perches and insulating energized elements.

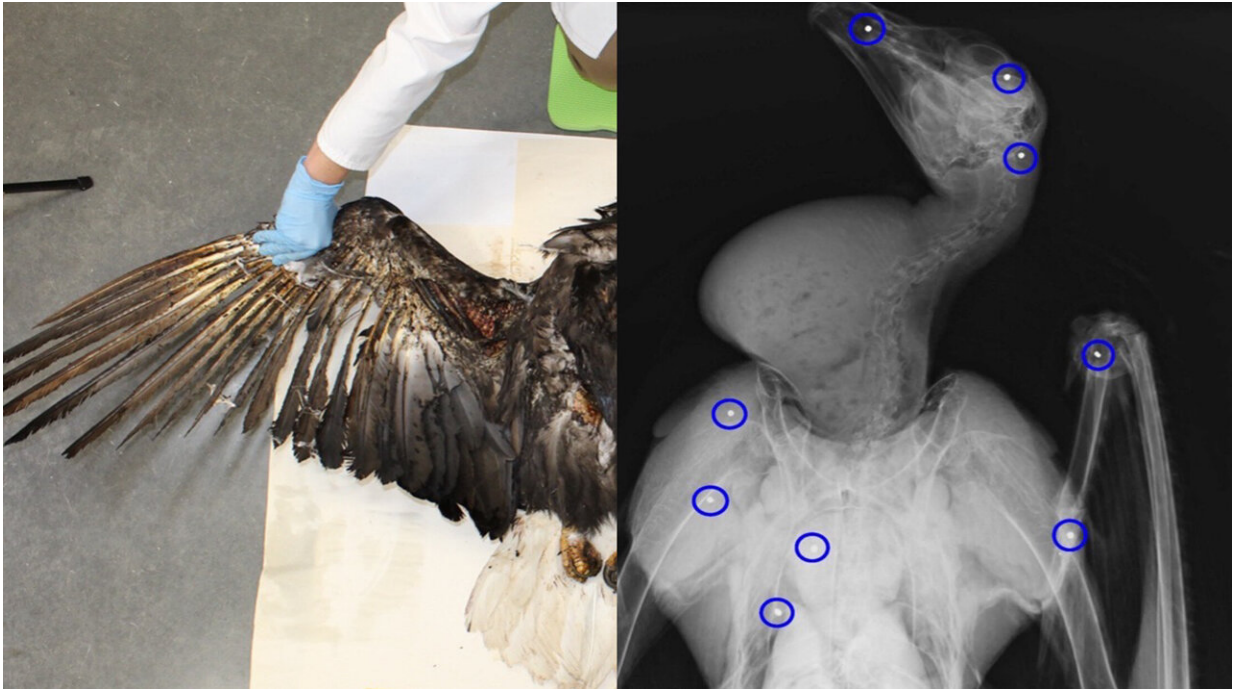
However, a recent study published on August 1 in the journal *iScience* presents a new priority for conservation, as it suggests that electrocution is no longer the only leading cause of death for [birds](#) along power lines. Instead, researchers report that 66% of dead birds that were found along power lines—for which a cause of death could be conclusively determined—died from being illegally shot.

"Solving conservation problems only works when we can accurately identify the cause of those problems," says first author Eve Thomason, a research associate at Boise State University's Raptor Research Center. "In this case, we need to know how birds are dying along power lines so that we can come up with strategies to reduce bird deaths."

Before starting this research project, Thomason used to perform avian risk assessment for a power company. There, she noticed that she was finding dead birds even along power lines where they should have been safe from electrocution. That's when she realized that many had been shot, which prompted her to organize a more complete investigation to study how common this shooting pattern was.

Over the course of four years, her team hiked or drove along 196 kilometers of power lines in Wyoming, Idaho, Utah, and Oregon in

search of dead birds. They collected a total of 410 carcasses, most of which were federally protected species such as eagles, hawks, and ravens. They then took them back to a laboratory to determine each bird's cause of death.



Bald eagle photograph and radiograph. Credit: *iScience*, Thomason et al

"What's unique to our study is that all remains were documented, collected, and X-rayed. We tried to identify the cause of death for every bird we found," says Thomason. "Prior studies typically only documented birds that were in relatively good condition, and X-rays were only sometimes performed."

By X-raying all remains, the researchers were able to more accurately identify bird shootings even when the manner of [death](#) was not

externally apparent from the carcass. For example, the team examined a [bald eagle](#) that a power line owner thought had died from electrocution. However, when they X-rayed the bird, they identified numerous shotgun pellets and entrance wounds throughout the eagle's body, suggesting that the bird was actually shot and then made contact with [power lines](#) as it fell to the ground.

The team is planning on continuing their power line surveys and expanding into new areas so they can understand the spatial extent of illegal shooting and see whether there's a reason why birds are being shot. This provides helpful information for [law enforcement](#) as they plan patrols or investigations to prevent this illegal shooting from continuing.

"We are just beginning to understand this problem, and in a lot of cases, it's really difficult to know what's going on," says Thomason. "Here's what the research tells us: when people have been caught doing this activity, we've learned that sometimes people shoot protected birds for fun, and sometimes they're trying to protect their livestock from predators."

**More information:** Eve C. Thomason, Illegal shooting is now a leading cause of death of birds along power lines in the western USA, *iScience* (2023). [DOI: 10.1016/j.isci.2023.107274](https://doi.org/10.1016/j.isci.2023.107274).  
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